

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A water treatment system comprising:

a. a well pump arrangement for drawing contaminated, ~~more specifically saline~~, water from a well;

the well pump arrangement comprising at least one double-cone device, the double-cone device having an inlet where ~~matter~~ contaminated water is sucked in during operation, the at least one double-cone device being located in the well during operation;

b. a purification unit for separating the contaminated water into purified water and ~~brine~~ contaminated solution, the purification unit further comprising:

i. an intermediate reservoir for storing the contaminated water;

ii. a pumping arrangement to pressurize the contaminated water obtained from the intermediate reservoir; and

iii. a separating unit to separate the pressurized contaminated water into purified water and ~~brine~~ contaminated solution;

c. a ~~brine~~ contaminated solution line for carrying the ~~brine~~ contaminated solution from the separating unit to the well pump arrangement;

so that ~~brine~~ contaminated solution ~~is capable to pour~~ pours out of the inlet of the double-cone device and ~~to sink~~ sinks down in the well and disposal of ~~brine~~ contaminated solution ~~and~~ into the environment is avoided, and so that the ~~brine~~ contaminated solution is reusable as feed for the double-cone device for reusing the energy stored in it.

2. (Currently Amended) The system according to claim 1, wherein the well pump arrangement for drawing ~~saline~~ contaminated water from ~~[[a]]~~ the well comprises:

a. a first double-cone device to convert a low flow rate high pressure ~~brine~~ contaminated solution feed into a lower pressure higher volume feed using the available well water; and

b. at least one second double-cone device to utilise the enhanced feed so as to draw even more water from the well onto the ground level;

whereby the well pump arrangement increases the volume of water that can be drawn from ~~[[a]]~~
the well.

3. (Previously Presented) The system according to claim 1, wherein the pumping arrangement to pressurize the contaminated water is a closed loop comprising:

- a. a double-cone device for pressurizing the contaminated water obtained from the intermediate reservoir and
- b. a circulating pump connected to the inlet of the double-cone device to improve the flow of the contaminated water in the closed loop.

4. (Currently Amended) The system according to claim 1, further comprising a second separation unit that utilises the pressure of the ~~brine~~ contaminated solution to dilute water from the intermediate reservoir, yielding a lower concentration contaminated water and a more concentrated ~~brine~~ contaminated solution,

wherein the more concentrated ~~brine~~ contaminated solution is used as feed for the well pump arrangement, and

wherein the lower concentration contaminated water flows to the closed loop pumping arrangement.

5. (Currently Amended) The system according to claim 1, further comprising a circulating pump to increase the flow of ~~saline~~ contaminated water from the intermediate reservoir to the pumping arrangement .

6. (Previously Presented) The system according to claim 1, further comprising a circulating pump to boost the pressure from the outlet of the pumping arrangement to the separation unit.

7. (Previously Presented) The system according to claim 1, further comprising one or more pressure regulating valves attached to intermediate reservoir, so as to supplement the feed pressure to the high pressure pump system.

8. (Currently Amended) A method for integrating a purification unit and a well pump arrangement to obtain sweet water, the method comprising the steps of:

- drawing contaminated water from a well using the well pump arrangement;
- passing the contaminated, ~~more specifically saline,~~ water through the ~~desalination~~ purification unit to obtain sweet water and ~~brine~~ contaminated solution;
- utilising the ~~brine~~ contaminated solution as a feed to run the well pump arrangement; and
- stopping the ~~brine~~ contaminated solution flow through the well pump when the concentration of the contamination in the ~~brine, more specifically the salt concentration,~~ contaminated solution exceeds a predetermined limit, so that ~~brine~~ the contaminated solution exits the well pump into the well in order to avoid disposal of ~~brine~~ the contaminated solution into the environment,

wherein at least one double-cone unit is deployed in the well pump arrangement, the at least one double-cone unit being located in the well during operation, and sucking in the contaminated water.

9. (Currently Amended) The method according to claim 8, wherein the step of utilising the ~~brine~~ contaminated solution as the feed to run the well pump arrangement further comprises the step of diluting the ~~brine~~ contaminated solution with well water in order to slow down the build up of the ~~[[salt]]~~ concentration of the contaminant.

10. (Previously Presented) The method according to claim 8, wherein the step of drawing contaminated water from the well using the well pump arrangement further comprises the step of converting a low volume contaminated water flow into a higher volume contaminated water flow by admixing water of the well.

11. (Currently Amended) The method of claim 10, wherein ~~at least one double-cone unit is deployed in the well pump,~~ the double-cone unit ~~being~~ is driven by the contaminated ~~water~~ solution as the working fluid ~~and sucking in well water.~~

12. (New) The system according to claim 1, wherein the contaminated water is saline water and the contaminated solution is brine solution.

13. (New) The method according to claim 8, wherein the contaminated water is saline water and the contaminated solution is brine solution.